

**METHOD AND SYSTEMS FOR ENHANCED CONCURRENCY IN A
COMPUTING ENVIRONMENT**

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ABSTRACT

A system and method for performing an operation within limits upon a shared value stored in an actual value location. The method provides a plurality of memory locations, two of the memory locations being first and second reservation memory locations, and two of the memory locations being limit memory locations containing limit values. An operand is obtained and the operation is performed upon an affected reservation register using the operand. A resulting value is compared to the limit values in the limit memory locations and if the resulting value is not within the values in the limit memory locations, an inverse operation is performed to restore the affected reservation register and a failure is reported. Else the operation is performed to update the actual value location, the operation is performed to update an unaffected reservation register, and a success is reported.